

REMARKS

Regarding the drawing objection, the numeral reference characters are added in the specification and the drawings. The formal drawings that are incorporated the amendment with better images of Figs. 2, 3 and 5 are re-submitted, hereby.

The ground rejection of claims 1 to 6, under 35 U.S.C. 103(a) as being unpatentable over Scherzer et al. (U.S. Patent 6,591,062), Scherzer et al. (U.S. Patent 6,591,062) in view of Konishi et al. (2002/0096984) and Scherzer et al. (U.S. Patent 6,591,062) in view of Toya et al. (U.S. Patent 6,204,488) are respectfully traversed.

Examiner also allowed claims 7 to 15. Thank you for allowing claims 7 to 15. However, these claims are rewritten to get rid of the informalities.

With respect to the ground rejection of claims 1, 3-4 and 6 under 35 U.S.C. 103(a), the examiner indicated that: a product cannot depend on the process of making. This informality is corrected in the above claim amendment.

Further, the examiner indicated that: Scherzer et al. teaches the claimed limitations of *a carbon heating apparatus*.

With respect to the ground rejection of claim 2 under 35 U.S.C. 103(a), the examiner indicated that: Scherzer et al. teaches substantially the claimed limitations excluding *the carbon heater uses mineral carbon materials such as a coke or coal*. However, Konishi et al. discloses *heating element including graphite and coke*.

With respect to the ground rejection of claim 5 under 35 U.S.C. 103(a), the examiner indicated that: Scherzer et al. teaches substantially the claimed invention excluding *the thickness and width of the molybdenum ribbon terminal*. However, Toya et al. discloses *the molybdenum ribbon terminal 25a having 8mm width and 35micron thickness*.

Finally, examiner concluded that it would be obvious to one of ordinary skill in the

art at the time of the invention to modify *the heating element including graphite and coke* taught by Konishi et al. and *the molybdenum ribbon terminal 25a having 8mm width and 35micron thickness* taught by Toya et al. to the Scherzer et al to reach the instant invention.

The applicant traverses the ground rejection of claims 2 and 5 because it is not a simple matter to reach the present invention by merely adding Konishi et al. or Toya et al. to Scherzer et al.

However, the applicant cancel the original claims 1-15 and add new claims 16-30 to clarify the claimed subject matter as presented above claim amendment.

The highlight of the amended limitation is that: a pair of terminal parts for providing electrical connection to said carbon heater, said terminal parts having a flat portion (31) at one end for connecting to outside power supply lines by welding means and a pair of clamping brackets (32) with protrusions (33) at opposite end for securely attaching to the carbon heater (30).

As discussed above, none of the cited references, Scherzer et al., Konishi et al. and Toya et al. alone or in combination, teach or obtain the amended features clamping brackets (32) with protrusions (33) of the present invention.

Furthermore, there are no sensible motivations to combine Scherzer et al. (U.S. Patent 6,591,062) in view of Konishi et al. (2002/0096984) or Toya et al. (U.S. Patent 6,204,488) because even in their combination, it is impossible to produce the currently amended features of the present invention.

Regarding the specification accompanied with the present amendment, it is voluntarily filed for correcting the obvious errors, informalities and wrong translation, which were contained in the original specification. In accordance with the requirement of 37CFR §1.125(b), applicants declare that No New Matter is contained in the substitute specification.

Attached hereto is a substitute specification and mark-up version of the changes

made to the specification and abstract by the current amendment. The attached page is captioned "Version with markings to show changes made."

Therefore, the applicant believes the present application is now in allowance condition and the Notice of Allowance is respectively solicited.

Respectfully submitted



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DRAWING AMENDMENT

The numeral reference characters are amended as follows:

Page 2, line 7, a numeral reference character “2” is added for a carbon heater.

Page 2, line 8, a numeral reference character “1” is added for a quartz glass tube.

Page 6, line 10 and page 10, line 6, a numeral reference character “31” is added for flat portion.

Page 6, line 11, page 10, line 8 and page 10, line 10-11 a numeral reference character “32” is added for clamping brackets.

Page 6, line 11 and page 10, line 11, a numeral reference character “33” is added for protrusions.

Page 6, line 11, a numeral reference character “15” is added for melt-jointing portion.

Page 11, line 2, a numeral reference character “34” is added for circular thin metal parts.

Page 11, line 2~3, a numeral reference character “35” is added for bent up and down shape part.

Page 11, line 2 & 5 a numeral reference character “36” is added for clamping bands.

The amended numeral reference characters are incorporated to Fig. 4, to Fig. 11b.